



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/803,507	03/18/2004	James Andrew Storer		6410
7590	08/23/2005		EXAMINER	
JAMES A. STORER 89 SOUTH GREAT Rd. LINCOLN, MA 01773			JEANGLAUME, JEAN BRUNER	
			ART UNIT	PAPER NUMBER
			2819	

DATE MAILED: 08/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

AK

<b>Office Action Summary</b>	Application No.	Applicant(s)
	10/803,507	STORER ET AL.
	Examiner	Art Unit
	Jean B. Jeanglaude	2819

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on amendment filed on 5-31-05.  
 2a) This action is **FINAL**.                            2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1-23 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1-23 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on 31 May 2005 is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1)  Notice of References Cited (PTO-892)  
 2)  Notice of Draftsperson's Patent Drawing Review (PTO-948)  
 3)  Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
 Paper No(s)/Mail Date 1/25/5;7-8-05.

4)  Interview Summary (PTO-413)  
 Paper No(s)/Mail Date. \_\_\_\_\_.  
 5)  Notice of Informal Patent Application (PTO-152)  
 6)  Other: \_\_\_\_\_.

### **Response To Amendments/Arguments**

1. The indicated allowability of claims 1 – 23 is withdrawn in view of the newly discovered reference(s) to Burn et al. (Article title “A Linear Time, Constant Space Difference Algorithm”) (IDS supplied by the Applicant). Rejections based on the newly cited reference(s) follow.
2. Prosecution on this case is reopened.

### **DETAILED ACTION**

#### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1 – 23 are rejected under 35 U.S.C. 102(b) as being anticipated by Burns et al. Burns et al. (A Linear Time, constant Space Difference Algorithm. IN proceedings of the 1997 International Performance, Computing and Communications Conference, IEEE, 1997).

5. Regarding claims 1, 16, Burns et al. a system and method for differential compression of a body of data S with respect to a body of data T (figs. 1, 2) , comprising the steps of: initializing a sliding window W of size MAX{m,n}+K so that its rightmost m characters are S, where K is an integer such that  $0 < K < \text{MIN}\{m,n\}$  (col. 1, paragraphs under the subtitle “introduction”); performing sliding window compression of T with window W, to produce a sequence of pointers (figs. 1 - 3; note the matching

sequence between the base file and the version file; page 4, paragraph under the subtitle “algorithm” , where each of the pointers represents a single character or represents a copy of an earlier substring of T or represents a copy of a substring of S, such that at least one of said pointers represents a copy of a substring of S (figs. 1, 2, 3; left hand column, the paragraphs under the subtitle “Examining Greedy Delta Compression); transmitting each pointer of the sequence of pointers to a utilization device that contains a copy of S (figs. 1, 2); upon receiving each of the pointers at the utilization device, performing an additional sliding window decoding step in the recovery of T, in such a way that the size of the memory used is no more than  $\text{MAX}\{m,n\} + K$ , and such that after the last pointer is received T is fully recovered (figs. 1, 2)( the decoding the method is shown in figs. 1, 2, 3 are the unshaded section).

6. Regarding claims 2, 17, Burns et al. a system and method (fig. 3), further comprising the step of rearranging substrings of S to that S is better aligned with T (fig. 3).

7. Regarding claims 3, 18, Burn et al. discloses a system and method (figs. 1, 2, 3) where  $K < \text{MIN}\{m,n\}/2$  (figs. 1, 2 ,3).

8. Regarding claims 4, 19, Burns et al. discloses a system and method (figs. 1, 2, 3) where K is  $O(\text{Radical MIN}\{m,n\})$  (figs. 1 – 3).

9. Regarding claims 5, 20, Burn et al. discloses a system and method (figs. 1 – 3) where  $K=0$ .

10. Regarding claims 6, 21, Burn et al. discloses a system and method (figs. 1 – 3) for representing a first body of data T of size n by a second body of data S of size m

and a sequence of pointers, where each of said pointers represents a single character or represents a copy of an earlier substring of T or represents a copy of a substring of S, such that at least one of said pointers represents a copy of a substring of S, so that it is possible to recover T from S by processing said sequence of pointers (figs. 1 - 3; note the matching sequence between the base file and the version file; page 4, paragraph under the subtitle "algorithm") and overwriting S from left to right, in such a way that the size of the memory used is no more than  $\text{MAX}\{m,n\} + K$ , where K is an integer such that  $0 < K < \text{MIN}\{m,n\}$  (figs. 1 – 3; page 1, the introduction section).

11. Regarding claims 7, 22, Burns et al. discloses a system and method (figs. 1 – 3) further comprising the step of: rearranging substrings of S to that S is better aligned with T (fig. 3).
12. Regarding claim 8, Burns et al. discloses a method (figs. 1- 3) where  $K < \text{MIN}\{m,n\}/2$ . (figs. 1 – 3).
13. Regarding claim 9, Burns et al. discloses a method (figs. 1 – 3) where K is  $O\{Y1V1IN\{m,n\}\}$ .
14. Regarding claim 10, Burns et al. discloses a method (figs. 1 – 3) where  $K=0$ .
15. Regarding claims 11, 23, Burns et al. discloses a system and method of recovering a first body of data T of size n from a second body of data S of size m and a sequence of pointers (figs. 1- 3) , where each of the pointers represents a single character or represents a copy of an earlier substring of T or represents a copy of a substring of S, such that at least one of pointers represents a copy of a substring of S, by processing said sequence of pointers (figs. 1 - 3; note the matching sequence

between the base file and the version file; page 4, paragraph under the subtitle "algorithm") and overwriting S from left to right, in such a way that the size of the memory used is no more than  $\text{MAX}\{m,n\} + K$ , where K is an integer such that  $0 <_ K < \text{MIN}\{m,n\}$  (figs. 1 – 3; page 1, the introduction section).

16. Regarding claim 12, Burns et al. disclose a method (figs. 1 – 3) , further comprising the step of: Rearranging substrings of S to that S is better aligned with T (fig. 3).

17. Regarding claim 13, Burns et al. discloses a method (figs. 1 – 3) where  $K < \text{MIN}\{m,n\}/2$  (figs. 1- 3).

18. Regarding claim 14, Burns et al. discloses a method (figs. 1- 3) where K is  $O(\text{radical } \text{MIN}\{m,n\})$  (figs. 1 – 3).

19. Regarding claim 15, Burns et al. discloses a method (figs. 1 – 3) where  $K=0$  (figs. 1 – 3).

#### Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jean B. Jeanglaude whose telephone number is 571-272-1804. The examiner can normally be reached on Monday - Friday 7:30 A. M. - 5:00 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Callaham can be reached on 571-272-1740. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jean Bruner Jeanglaude  
Primary Examiner  
August 12, 2005